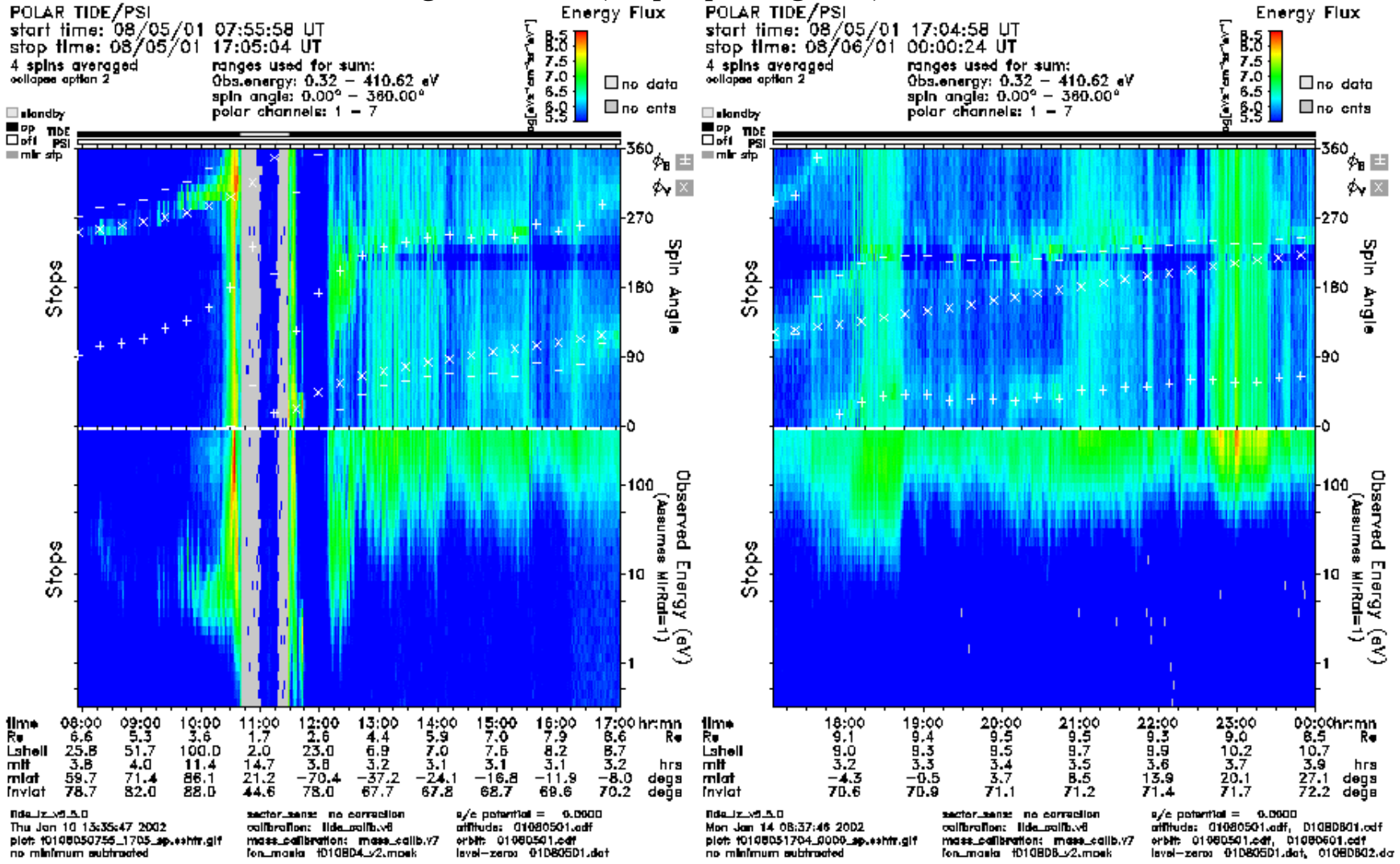
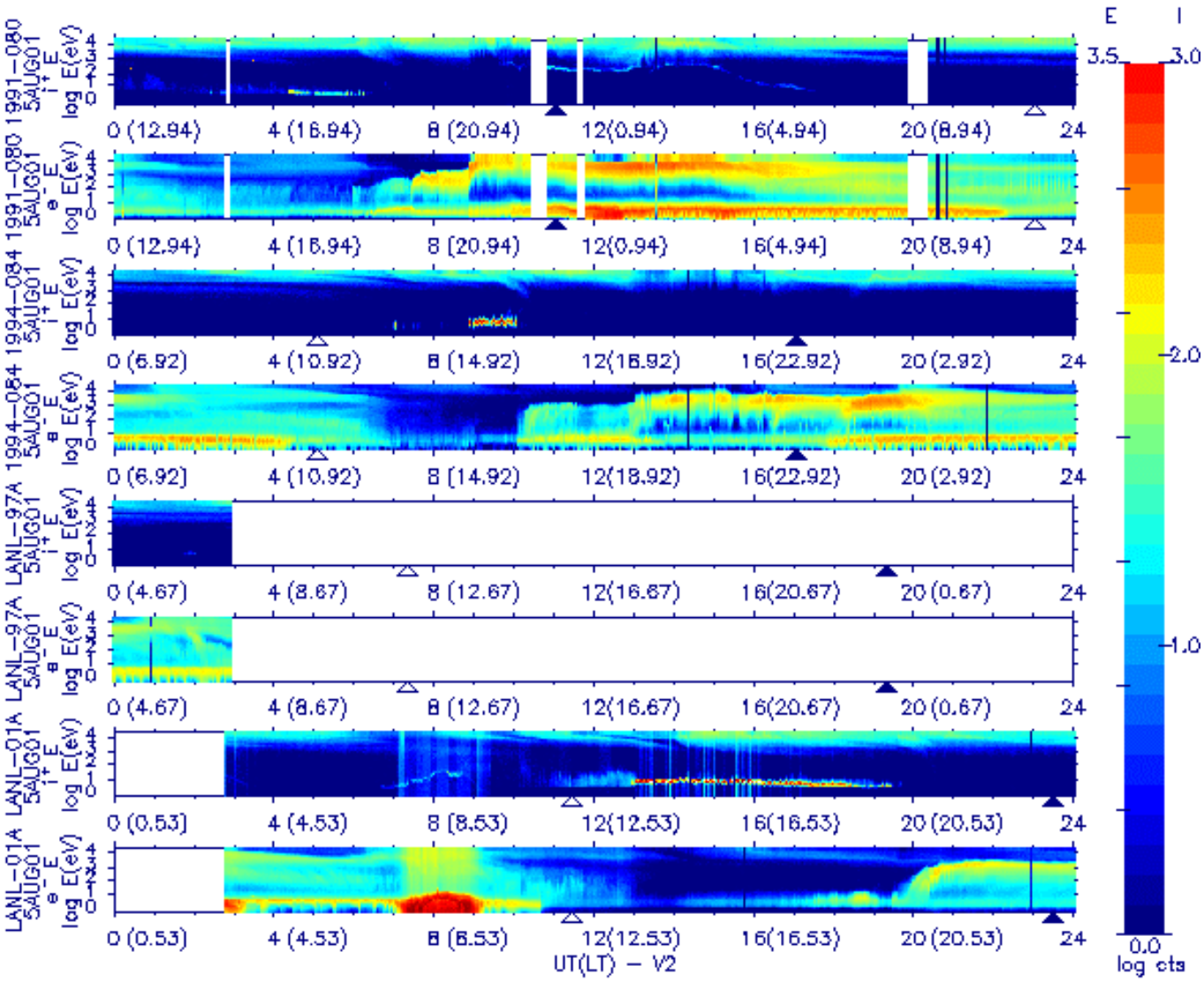
Post-midnight, Sub-keV, Field-Aligned Ions

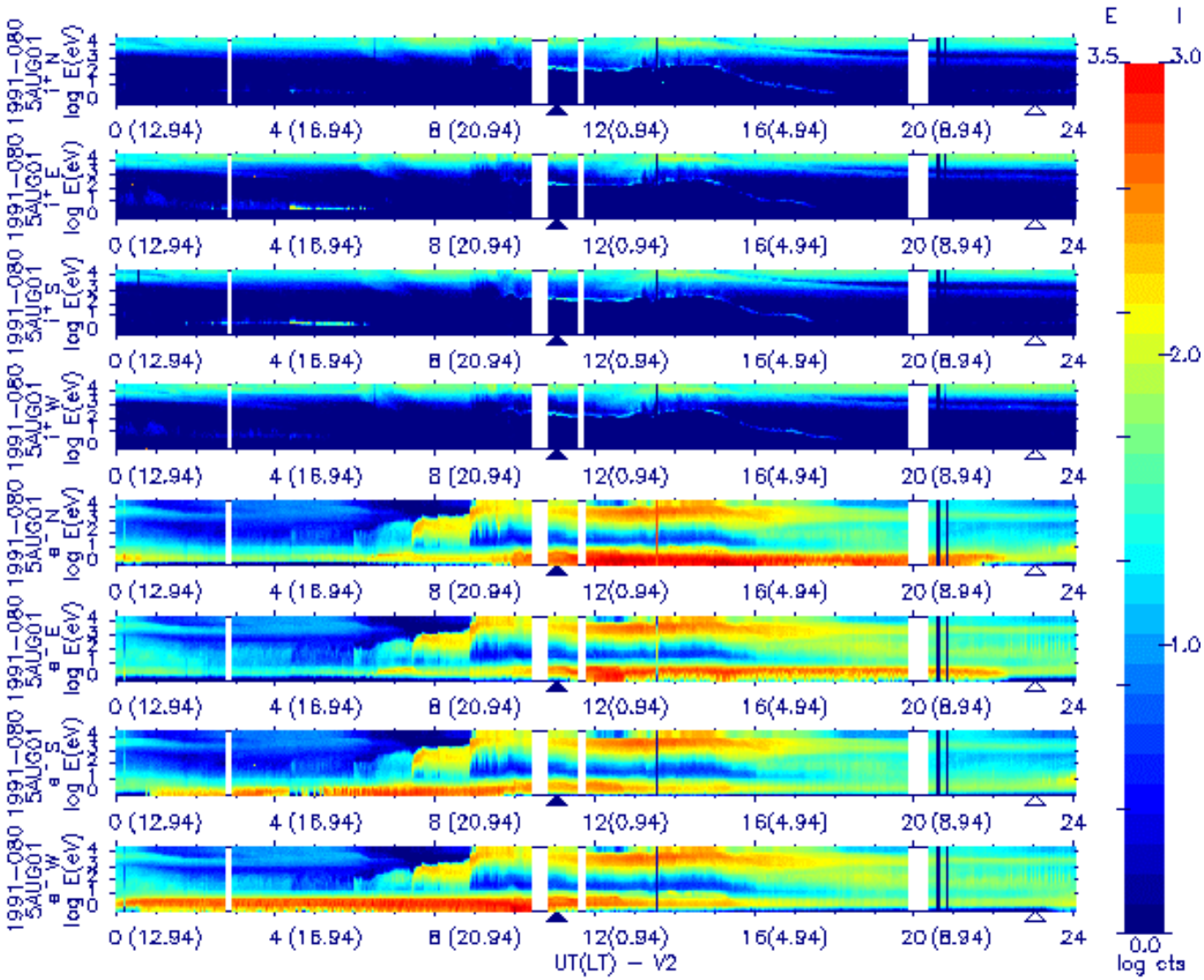
Polar-TIDE Observations: August 5, 2001 (Stops spectrograms)



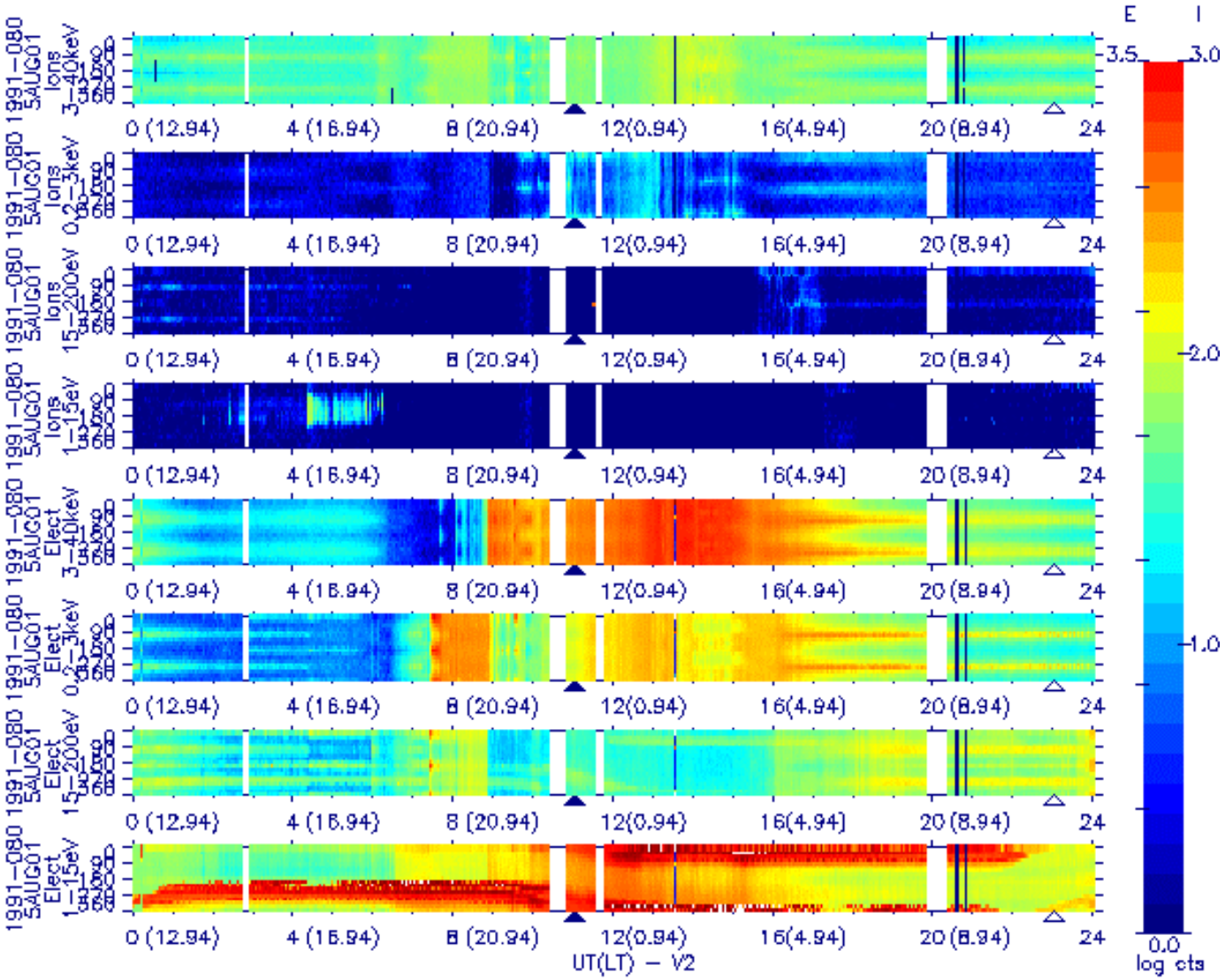
LANL-MPA Observations: August 5, 2001 (Energy spectrograms, all satellites)



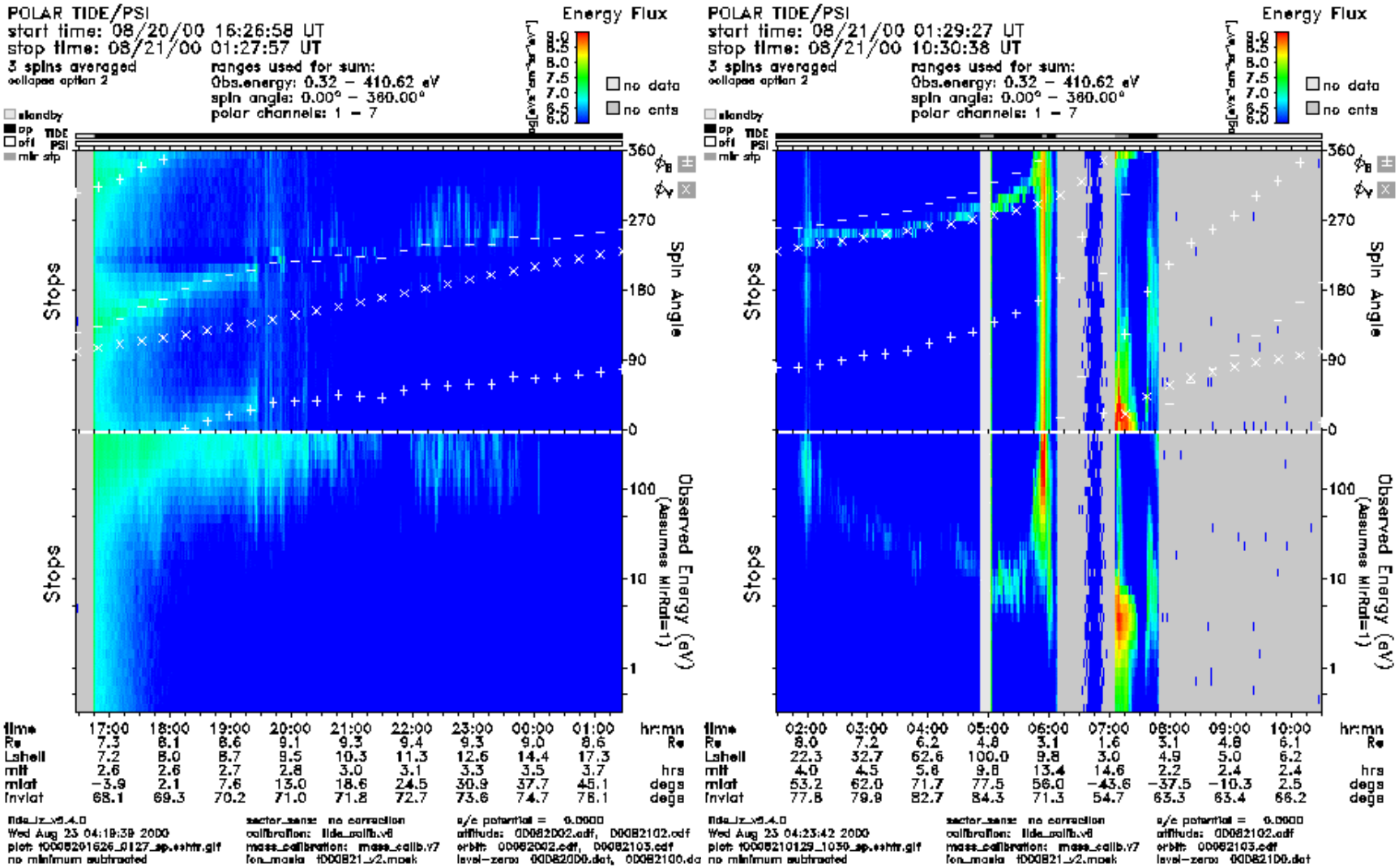
LANL-MPA Observations: August 5, 2001 (Energy spectrograms, satellite 1991-080)



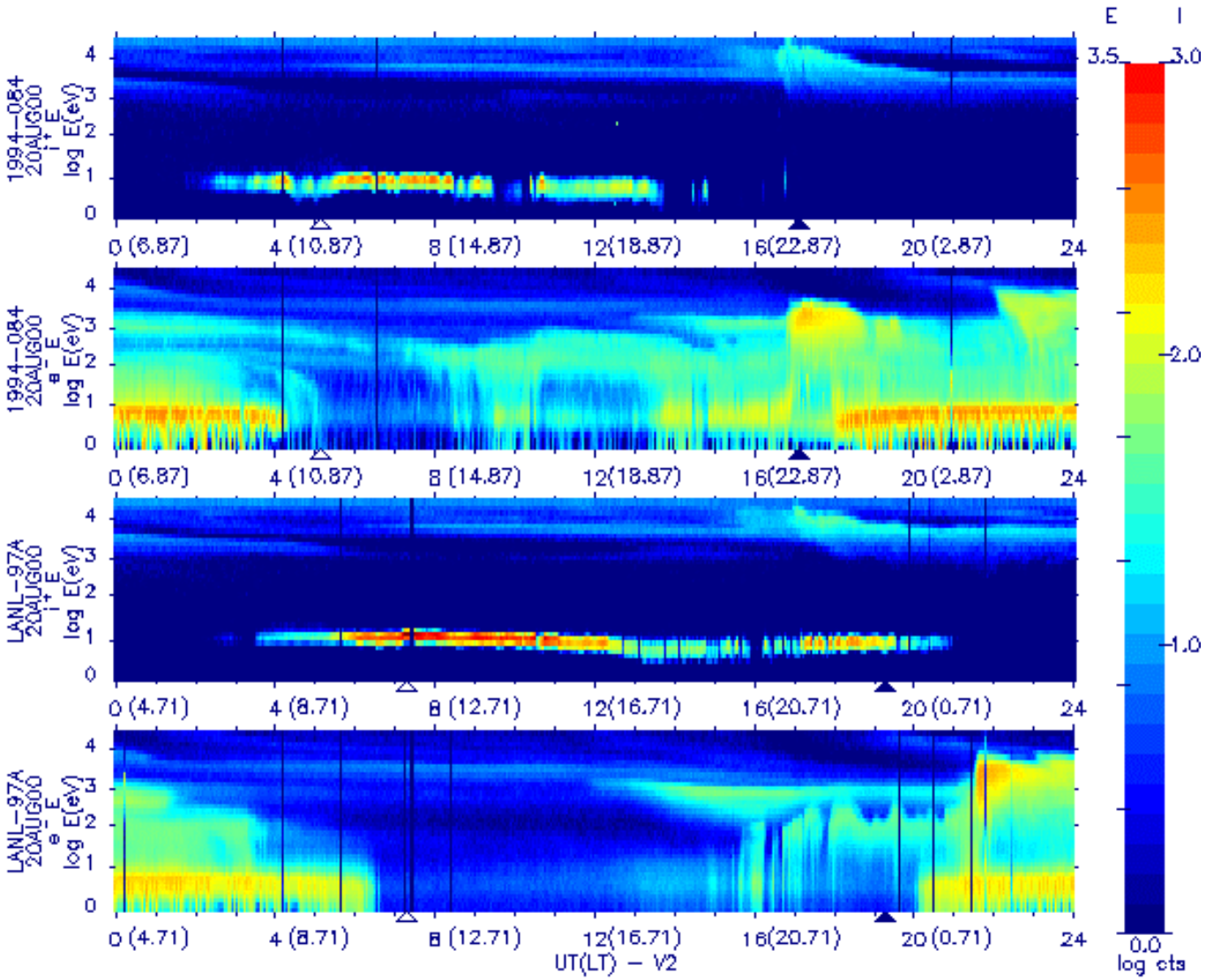
LANL-MPA Observations: August 5, 2001 (Azimuth spectrograms, satellite 1991-080)



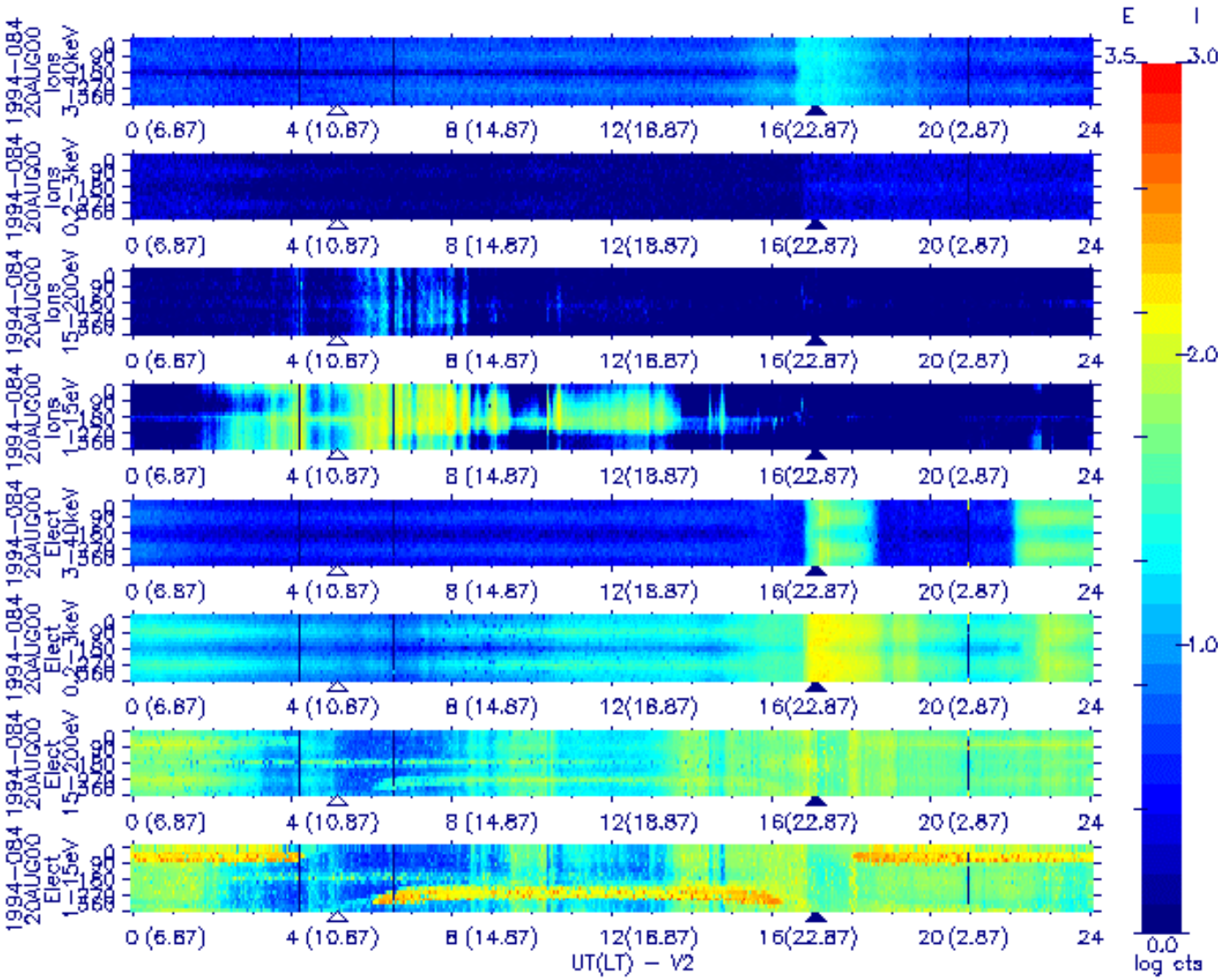
Polar-TIDE Observations: August 20, 2000 (Stops spectrograms)



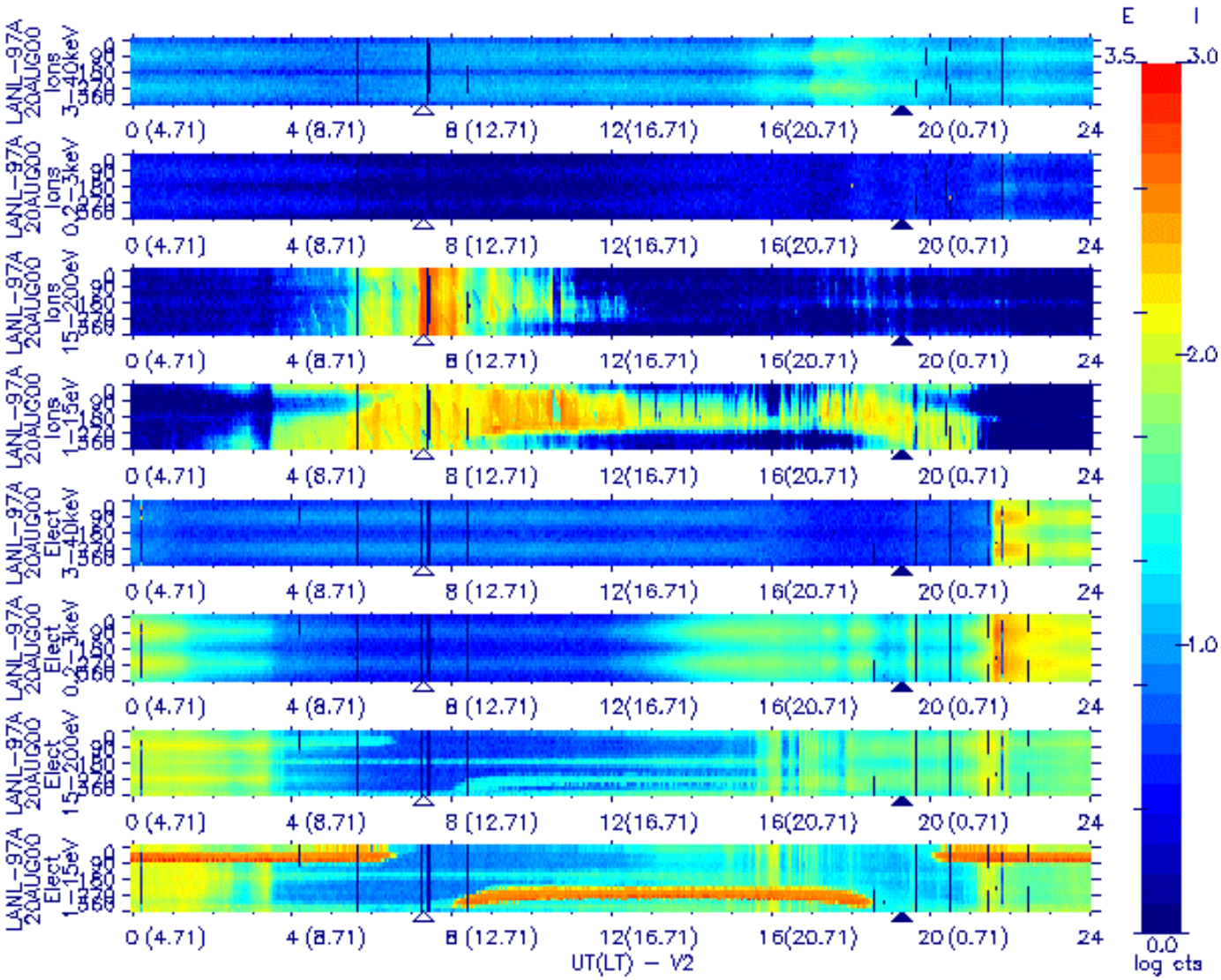
LANL-MPA Observations: August 5, 2001 (Energy spectrograms, all satellites)



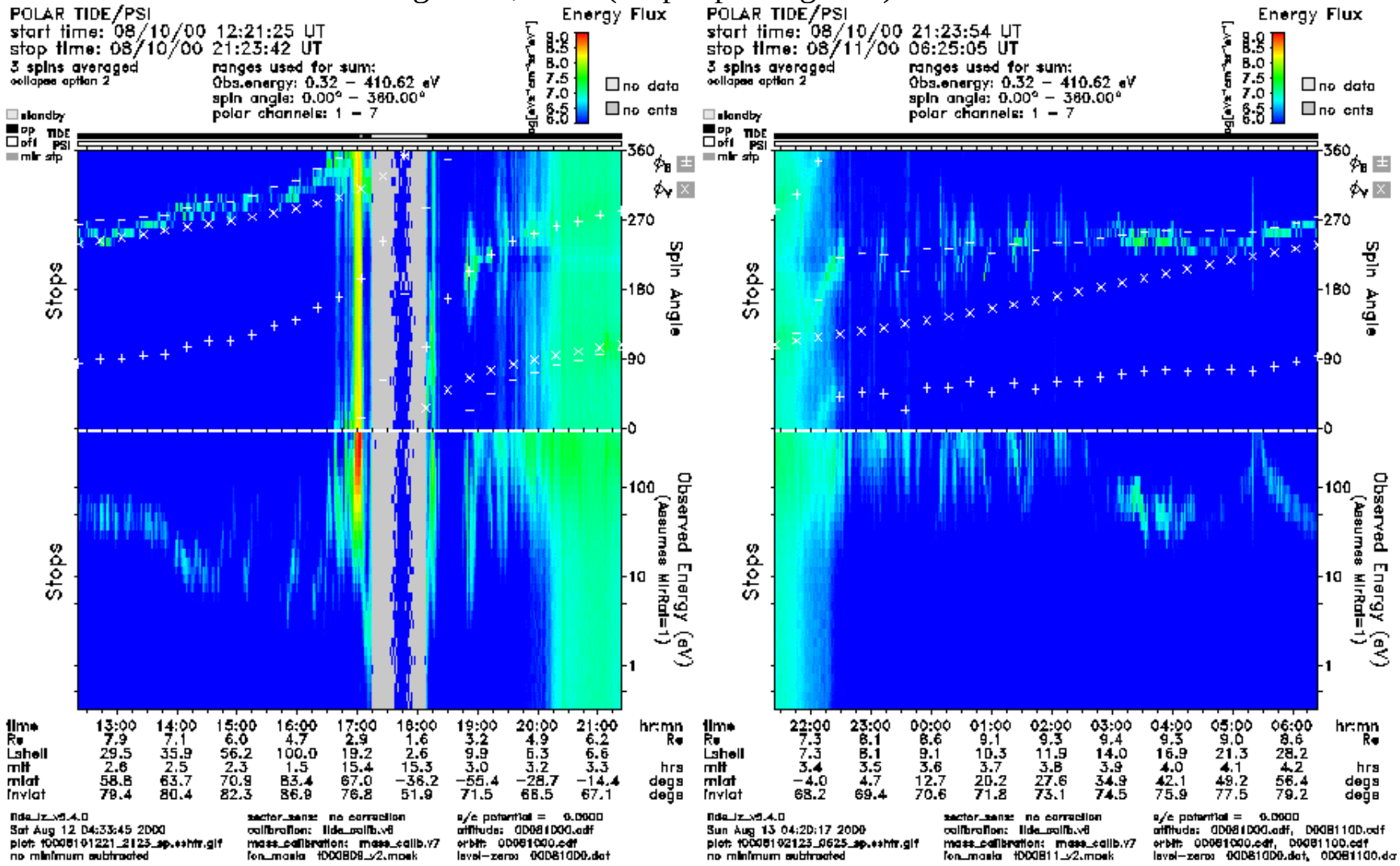
LANL-MPA Observations: August 20, 2000 (Azimuth spectrograms, satellite 1994-084)



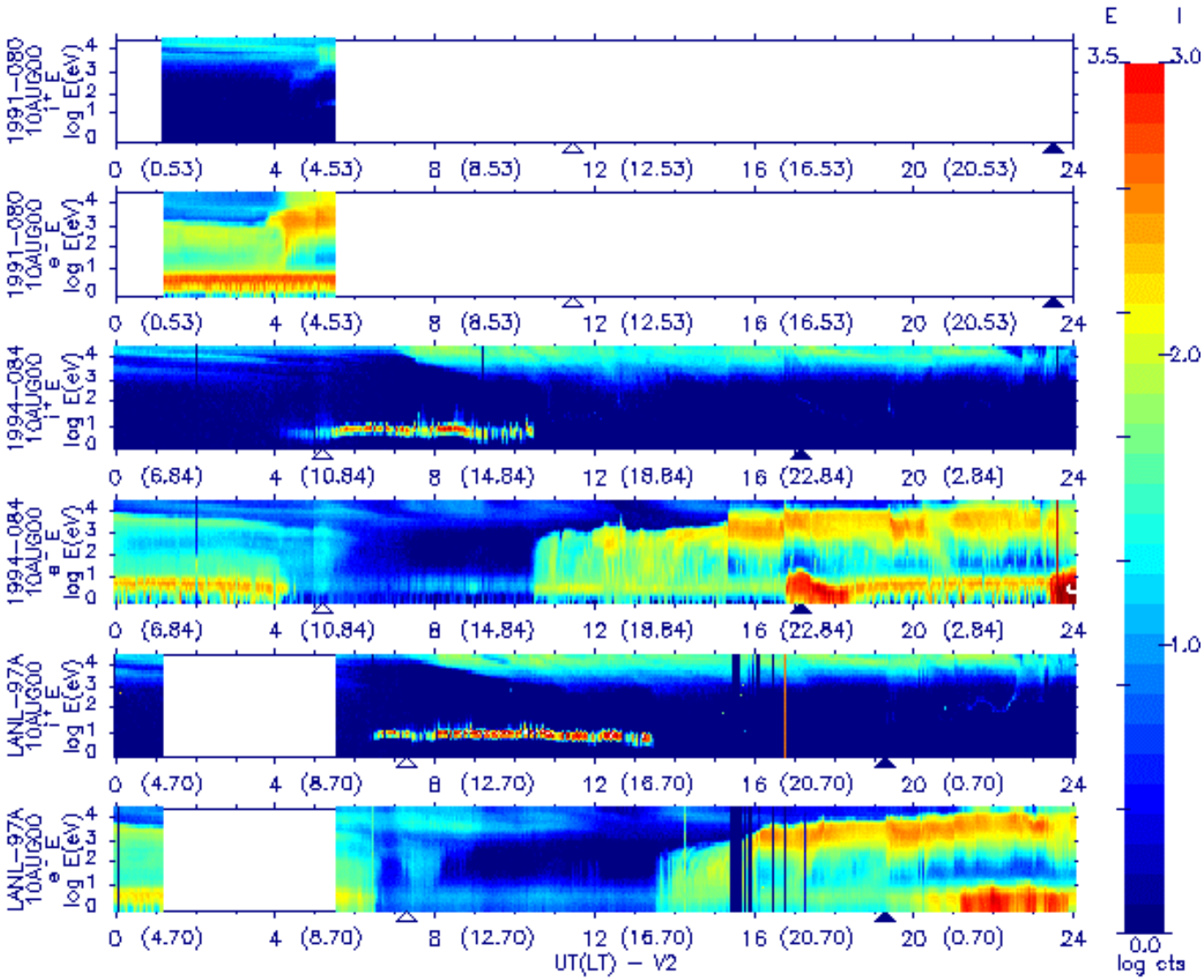
LANL-MPA Observations: August 20, 2000 (Azimuth spectrogram, satellite LANL-97A)



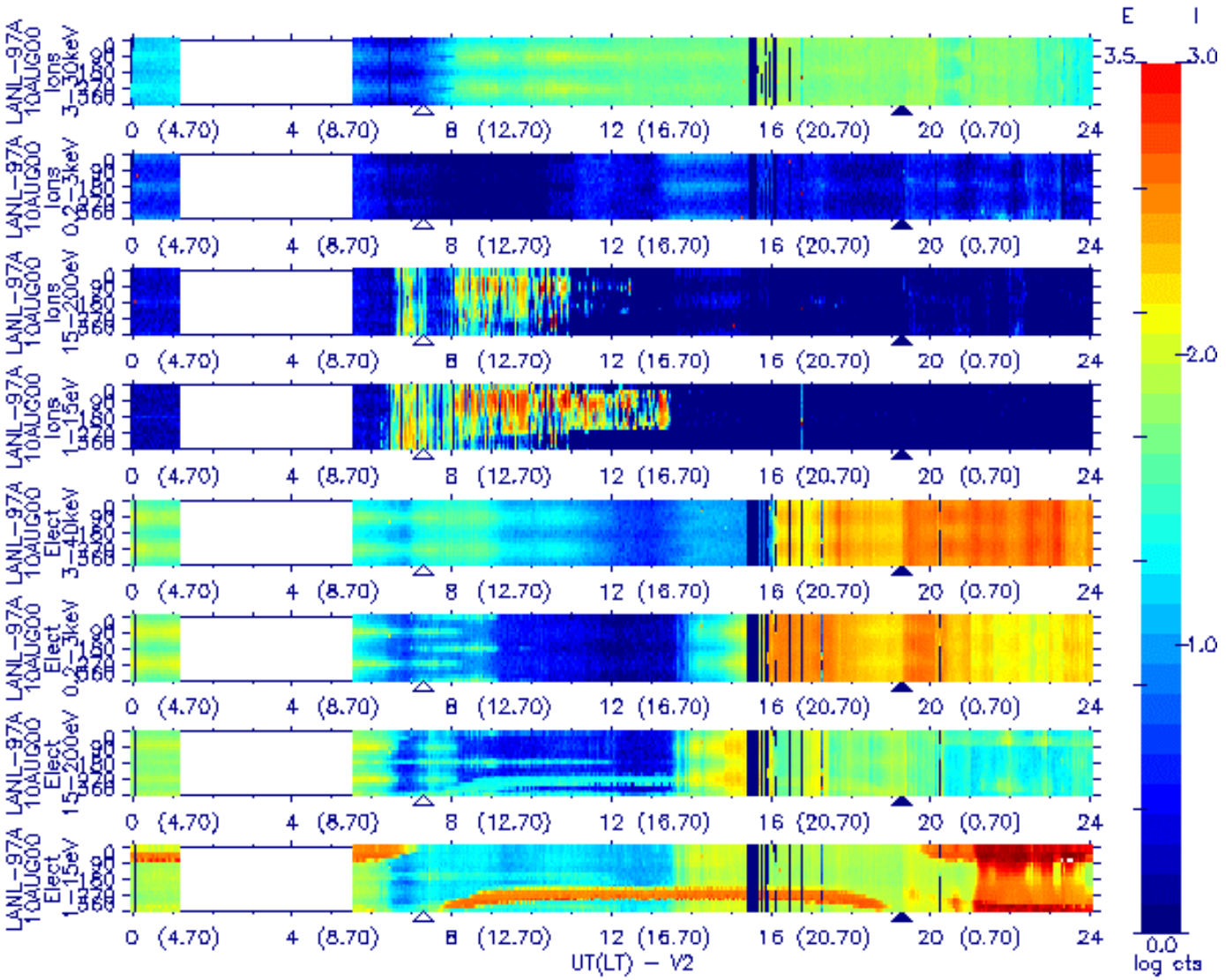
Polar-TIDE Observations: August 10, 2000 (Stops spectrograms)



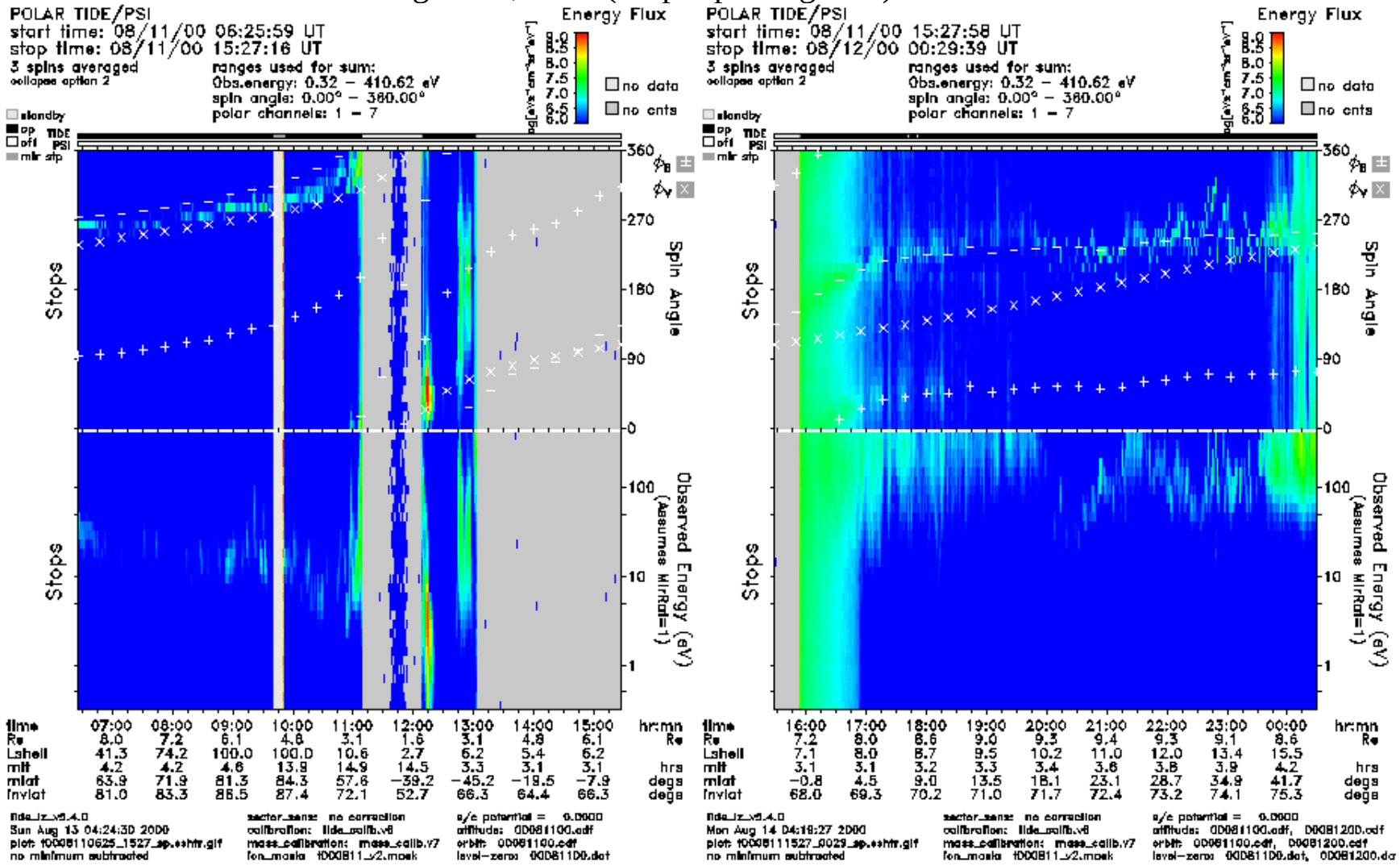
LANL-MPA Observations: August 10, 2000 (Energy spectrograms, all satellites)



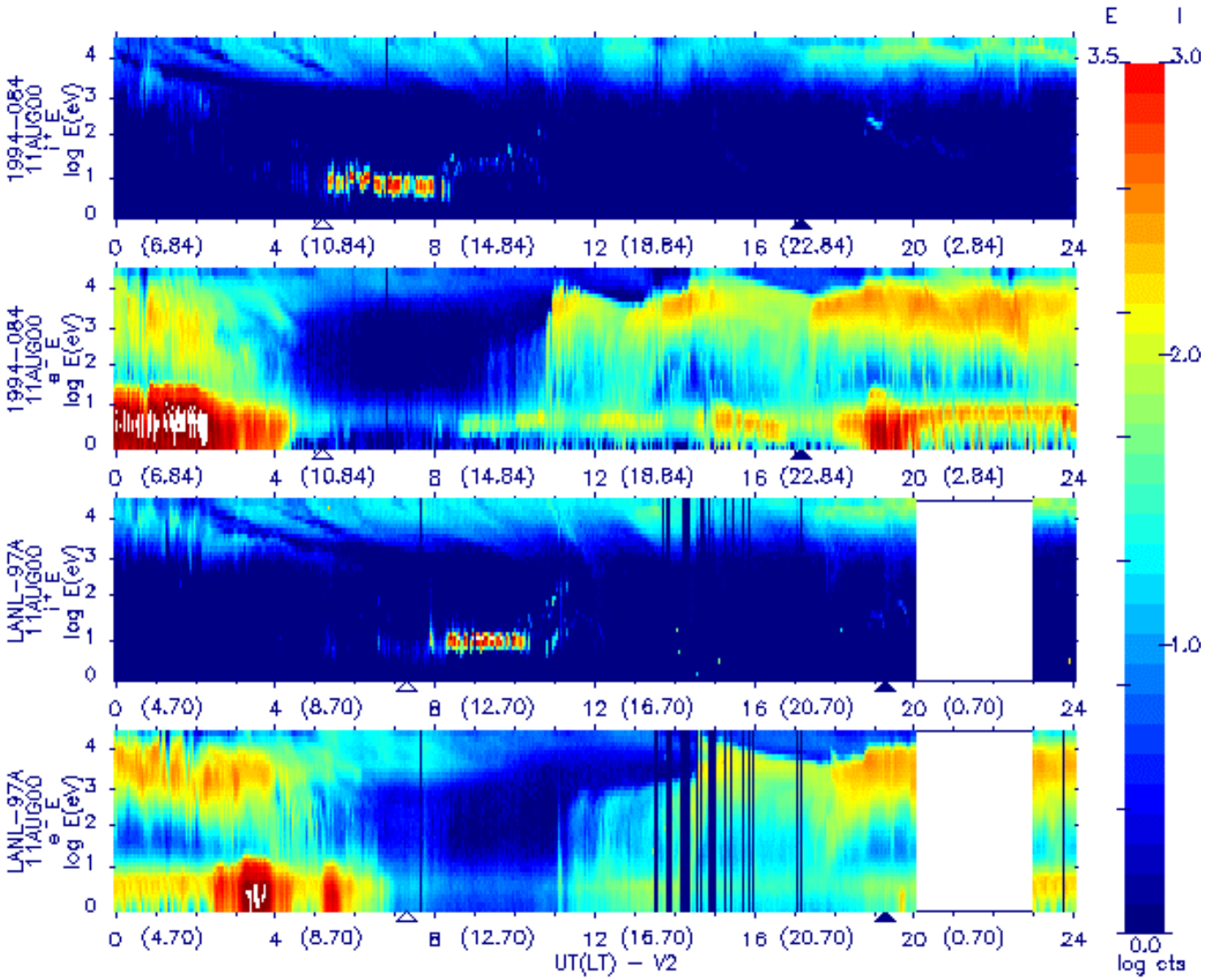
LANL-MPA Observations: August 10, 2000 (Azimuth spectrograms, satellite LANL-97A)



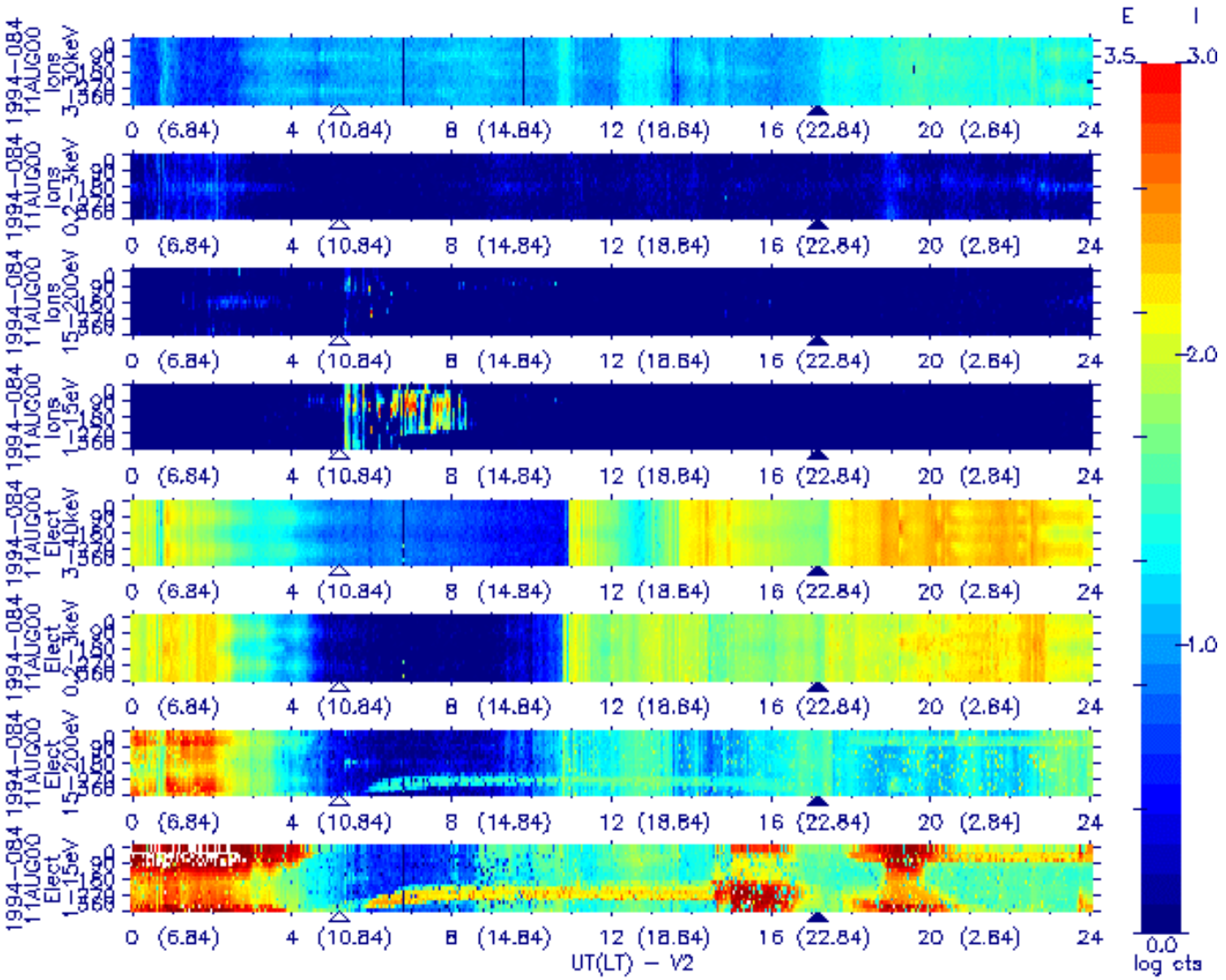
Polar-TIDE Observations: August 11, 2000 (Stops spectrograms)



LANL-MPA Observations: August 11, 2000 (Azimuth spectrograms, satellite 1994-084)



LANL-MPA Observations: August 11, 2000 (Azimuth spectrograms, satellite 1994-084)



Sub-keV, Field-Aligned Ions in the Post-midnight, Near-Earth Plasma Sheet: Survey of August 2000 and 2001

TIDE (02 to 04 LT)

- Seen on nearly every pass for stretches of many hours
- Intensity may flicker on a timescale of tens of minutes
- Uni- or bi-directional flows, sometimes changing during a pass
- Usually above 100 eV
- Highly-field-aligned, within 10-20˚ of B-field direction
- Often widens in pitch angle near the equator

LANL

- Only seen between 00 LT and 06 LT
- Not every day and not every satellite
- Seen on about 40% of passes with data available (68/169)
- Very narrow in energy, usually spike-like, between 100 and 1000 eV
- Average energy often increases slightly and then drops with LT
- Field-aligned bias, but it can be isotropic
- Seems to be present on storm days, but then absent for a day or two after